

Appln. No. 10/086,359
Amdt. dated July 19, 2005
Reply to Office Action of Apr. 19, 2005
Docket No. BOC9-2001-0018 (262)

REMARKS/ARGUMENTS

These remarks are made in response to the Office Action of April 19, 2005 (Office Action). As this response is timely filed within the 3-month shortened statutory period, no fee is believed due.

In paragraph 2 of the Office Action, the Examiner has rejected claims 1-4, 6-7, 9-13, and 15-16 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,684,183 to Korall, *et al.* (Korall). In paragraphs 3-4 of the Office Action, the Examiner has rejected claims 5, 8, 14, and 17 under 35 U.S.C. § 103(a) as being unpatentable over Korall.

I. Claim Amendments

In response to the Office Action, Applicants have amended claims 1, 2, 5, 8, 9, 10, 11, 14, and 17 to emphasize various aspects of the invention detailed in the specification. More specifically, claims 1, 9, and 10 have been amended to clarify that a heading selection is a selection item for identifying an associated content item through a speech interface, as supported by page 7, lines 3-5. Claims 1, 9, and 10 have been amended to clarify that the first *n* words of the heading section are extracted, as supported by page 8, lines 5-10. Claims 1, 9, and 10 have been amended to emphasize that a determination can be made that heading sections are to be presented to a user, as supported by page 7, lines 28-29. Claims 1, 9, and 10 have been amended to emphasize that speech recognition occurs using the generated heading grammar, as supported by page 8, lines 24-25. Claims 1 and 10 have been modified to indicate that the identified headings are presented to a user, as supported by page 8, line 21. Additionally, the automatic nature of the heading grammar generation is supported by page 7, lines 22-23.

Claims 2 and 11 have been amended to clarify that headings can be identified with a suitable tag using a markup language, as supported by page 7, lines 8-9. Claims 5 and

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14 have been amended for clarity in light of the previous claim amendments, as supported by page 5, lines 15-18. Claims 8, and 17 have been amended to emphasize that a heading grammar can be generated at designated times such as during a system update or synchronization, as supported by page 7, lines 23-25.

No new matter results from these amendments.

II. Overview of Applicants' Claimed Invention

Applicants' invention concerns a method and a system for generating a grammar for use in recognizing or decoding a particular class of user speech. More specifically, the present invention provides for the automatic generation of a grammar suited to process user speech specifying headings. Headings can include, for example, a text word or phrase specifying the title or content of an associated story, article, news item, electronic document, or the like. In accordance with the inventive arrangements disclosed herein, a grammar can be generated using the first "n" words from each heading within a set of headings. The resulting heading grammar can, in most cases, unambiguously identify a user desired heading. Notably, the resulting heading grammar typically is smaller than a grammar generated by including all possible word or keyword combinations from a set of headings. The reduced size of the heading grammar can increase speech recognition accuracy while also reducing the time needed to decode user speech. Moreover, the heading grammar disclosed herein can be generated automatically and dynamically responsive to particular events.

Part of the utility with our patent relies upon IBM (our client) conducted research into the uniqueness of initial words within headers. Applicants have been presented with a document detailing titled "The Uniqueness of Initial Words in News Headlines" authored by the inventors dated March 2, 2001. Applicants can provide the Examiner

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with a full version of this document upon request should the Examiner believe the document relevant to the prosecution of the present application.

III. Korall Fails to Teach Claimed Limitations

Claims 1-4, 6-7, 9-13, and 15-16 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Korall. Claims 5, 8, 14, and 17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Korall.

Korall teaches a system in which a user identifies terms contained within example phrases. The user then specifies a type corresponding to the identified terms. Korall is designed as a methodology that allows users to define a speech grammar or to define rules for a speech grammar without the user having specific knowledge of ASR engine syntax, such as Backus Normal Form (BNF) syntax. (column 2, lines 38-42)

The system of Korall is very different from Applicants' invention. Not only does the system of Korall "allow" a user to define a set of grammar rules, it requires users to do this. The system of Korall cannot work unless a user provides examples and, from the text in that example, define one or more 'types'. The system of Korvall cannot generate a grammar unless (1) a user provides the system with examples, (2) the user makes selections within the examples to identify terms, and (3) the user specifies a type corresponding to each of the identified terms. In contrast, the Applicants teach a system that automatically generates grammars for headings, where the grammars generated include the first "n" words of the headings. Because of the uniqueness of the initial words of headings, user selections of headings can be made through voice utterances with increased accuracy over conventional methodologies (the smaller a grammar, the less prone it is to recognition errors resulting from misinterpreting one word within the grammar for another).

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Referring to specific claimed limitations, Applicants claim automatically identifying at least one heading selection within a data store. Korvall fails to teach this limitation and instead provides conflicting teachings that heading selections are identified by a user.

Applicants claim that initial words are automatically extracted from a heading section and used to generate heading grammars. Korvall fails to teach this limitation and instead provides conflicting teachings that user interactions are required to generate grammars.

Applicants claim that the automatically extracted words are to include "n" words of the heading section, where "n" is less than the total number of words. Korvall lacks this teaching.

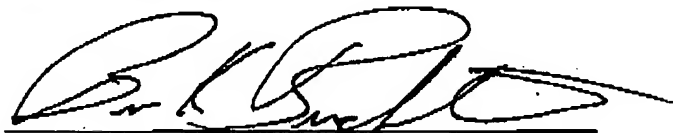
Applicants claim the step of presenting the indicated heading sections to a user, which Korvall fails to teach.

Because Korvall fails to explicitly or implicitly teach each claimed limitation, the rejections to claims 1-17 should be withdrawn, which action is respectfully requested.

The Applicants believe that this application is now in full condition for allowance, which action is respectfully requested. The Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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